

Scientific and Technical Information Center

Requester's Full Name: Robert (Rerty) Shiao Examiner #: 79521 Date: 4/05/97  
 Art Unit: 1626 Phone Number 2-0707 Serial Number: 11/507,073  
 Mail Box and Bldg/Room Location: REX 5A145C18 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

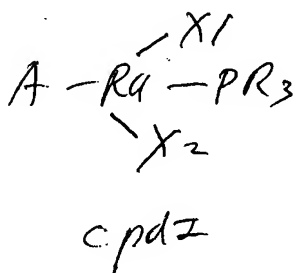
Title of Invention: Arene-ruthenium

Inventors (please provide full names): Kobayashi

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

I sub a polymer-supported arene-ruthenium complex,  
 and the complex is the  $\text{cpd 2}$ . (see claim 1)  
 or  $\text{Xp1, 3A}$



\* A is aromatic polymer  
 \*  $\text{X1, X2}$  is halogen  
 \* R is hydrocarbon

II sub a process of making  
 a polymer-supported arene-ruthenium complex.  
 (see claim 5)

STAFF USE ONLY

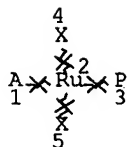
Searcher: \_\_\_\_\_  
 Searcher Phone #: \_\_\_\_\_  
 Searcher Location: \_\_\_\_\_

Type of Search

NA Sequence (#) \_\_\_\_\_  
 AA Sequence (#) \_\_\_\_\_  
 Structure (#) \_\_\_\_\_

Vendors and cost where applicable

STN \_\_\_\_\_  
 Dialog \_\_\_\_\_  
 Questel/Orbit \_\_\_\_\_



## NODE ATTRIBUTES:

NSPEC IS R AT 1  
 NSPEC IS RC AT 2  
 NSPEC IS RC AT 3  
 NSPEC IS RC AT 4  
 NSPEC IS RC AT 5  
 CONNECT IS M2 RC AT 3  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 5

## STEREO ATTRIBUTES: NONE

L9 6027 SEA FILE=REGISTRY SSS FUL L7

100.0% PROCESSED 66757 ITERATIONS  
 SEARCH TIME: 00.00.01

6027 ANSWERS

=> d que stat 110

L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON 9003-53-6/RN

=> d que nos 182

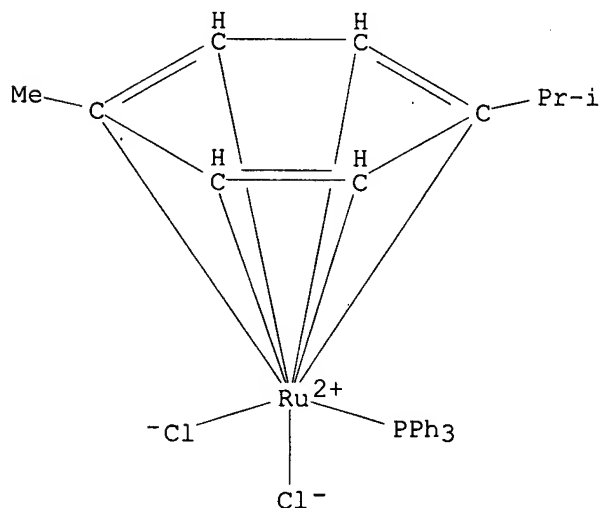
L7 STR  
 L9 6027 SEA FILE=REGISTRY SSS FUL L7  
 L82 0 SEA FILE=REGISTRY ABB=ON PLU=ON L9 AND (MEDLINE/LC OR  
 EMBASE/LC OR BIOSIS/LC OR CABA/LC OR BIOTECHNO/LC OR DRUGU/LC  
 OR VETU/LC)

=> d que nos 155

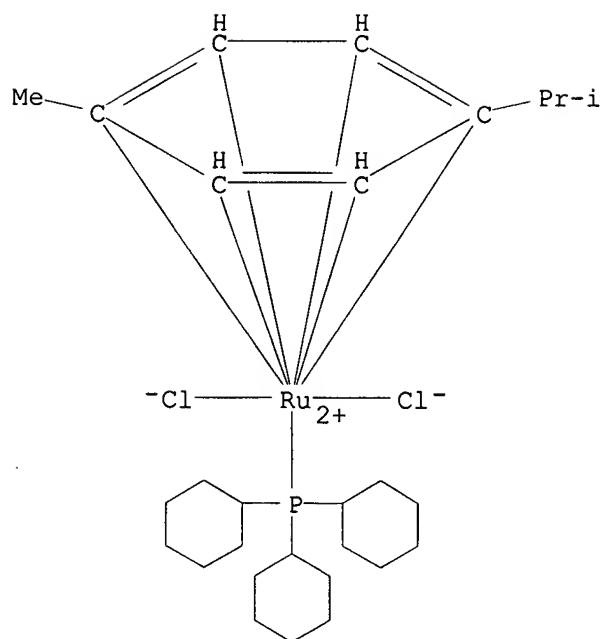
L7 STR  
 L9 6027 SEA FILE=REGISTRY SSS FUL L7  
 L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON 9003-53-6/RN  
 L11 QUE ABB=ON PLU=ON ?RUTHEN? OR RU  
 L12 QUE ABB=ON PLU=ON "9003-53-6D" OR "9003-53-6DP"  
 L16 QUE ABB=ON PLU=ON "484034-35-7D" OR "484034-35-7DP" OR  
 "484034-37-9D" OR "484034-37-9DP"  
 L17 QUE ABB=ON PLU=ON ?POLYMER OR COPOLYMER? OR HOMOPOLYME  
 R? OR ?POLYMERI?  
 L18 QUE ABB=ON PLU=ON SUPPORT OR SCAFFOLD OR FRAMEWORK OR  
 (FRAME(W)WORK)  
 L19 QUE ABB=ON PLU=ON BIND? OR ?BOUND OR ATTACH? OR TETHER  
 ? OR BOND? OR COORDINAT? OR COMPLEX?  
 L20 QUE ABB=ON PLU=ON ORGANIC  
 L21 QUE ABB=ON PLU=ON ?STYREN? OR ?POLYSTYREN?  
 L22 QUE ABB=ON PLU=ON ARENE OR HETEROARENE OR ARENYL? OR H

L9 ANSWER 48 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:34600 CAPLUS  
 DOCUMENT NUMBER: 132:79002  
 TITLE: Ruthenium or osmium complex polymerization catalysts  
 for olefin/acrylics  
 INVENTOR(S): Noels, Alfred Felix  
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
 SOURCE: Eur. Pat. Appl., 13 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 970972	A1	20000112	EP 1998-810654	19980710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:			EP 1998-810654	19980710
OTHER SOURCE(S):	MARPAT 132:79002			
AB	A polymerizable aliphatic monomer or oligomer containing ethylene groups is polymerized with a monocomponent Ru (II) or Os (II) complex catalyst. These catalysts are used to prepare a (co)oligomer or (co)polymer by free radical polymerization			
IT	52490-94-5 145381-23-3 167412-51-3 169829-68-9 253785-26-1 253785-27-2 RL: CAT (Catalyst use); USES (Uses) (Ruthenium or osmium complex polymerization catalysts)			
RN	52490-94-5 CAPLUS			
CN	Ruthenium, dichloro[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene](triphenylphosphine)- (9CI) (CA INDEX NAME)			

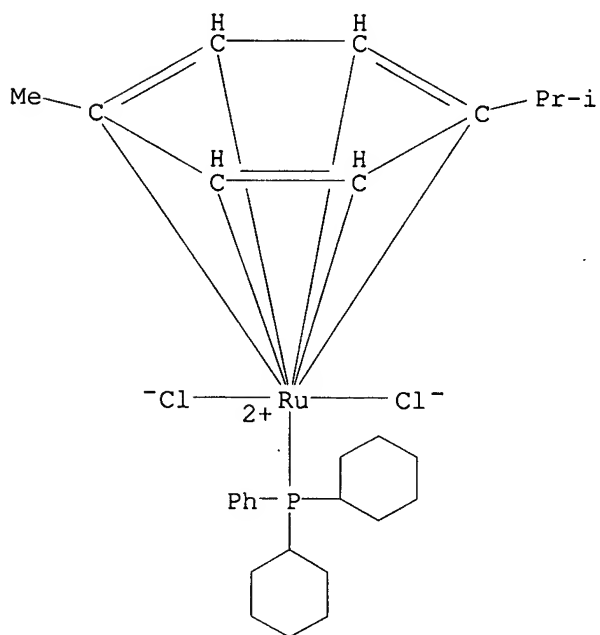


RN 145381-23-3 CAPLUS  
 CN Ruthenium, dichloro[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene](tricyclohexylphosphine)- (9CI) (CA INDEX NAME)



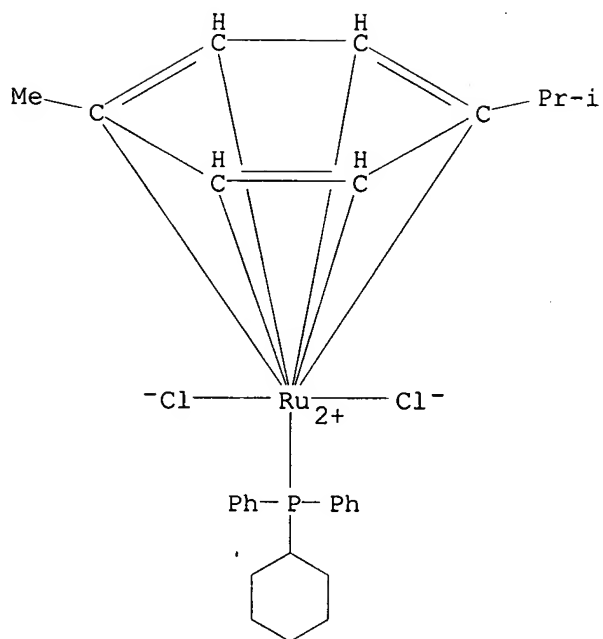
RN 167412-51-3 CAPLUS

CN Ruthenium, dichloro(dicyclohexylphenylphosphine)[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene]- (9CI) (CA INDEX NAME)

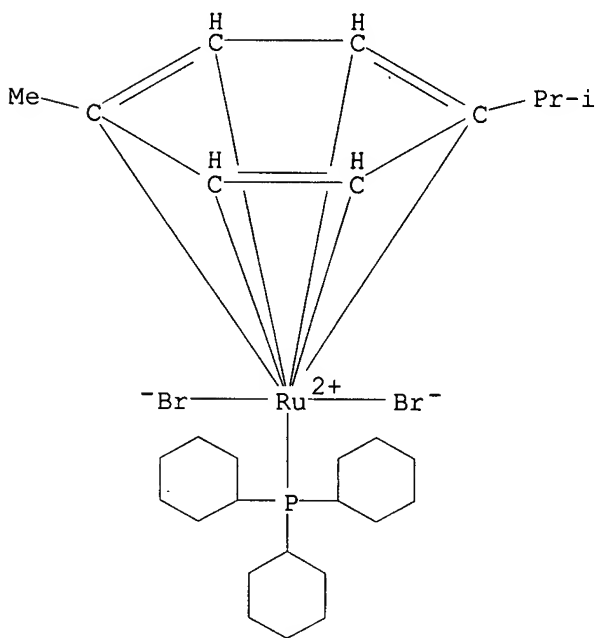


RN 169829-68-9 CAPLUS

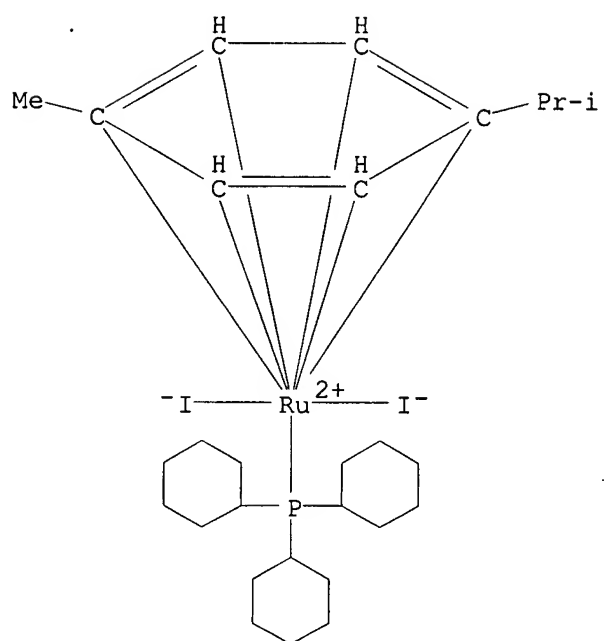
CN Ruthenium, dichloro(cyclohexyldiphenylphosphine)[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene]- (9CI) (CA INDEX NAME)



RN 253785-26-1 CAPLUS  
 CN Ruthenium, dibromo[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene](tricyclohexylphosphine)- (9CI) (CA INDEX NAME)



RN 253785-27-2 CAPLUS  
 CN Ruthenium, diiodo[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene](tricyclohexylphosphine)- (9CI) (CA INDEX NAME)



L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:656856 CAPLUS

DOCUMENT NUMBER: 133:350569

TITLE: Synthesis and evaluation of new  $\text{RuCl}_2(\text{p-cymene})(\text{ER}_2\text{R}')$  and  $(\eta^1:\eta^6\text{-phosphinoarene})\text{RuCl}_2$  complexes as ring-opening metathesis polymerization catalysts

AUTHOR(S): Jan, D.; Delaude, L.; Simal, F.; Demonceau, A.; Noels, A. F.

CORPORATE SOURCE: Sart-Tilman, Institut de Chimie (B6a), Center for Education and Research on Macromolecules (CERM), Universite de Liege, Liege, B-4000, Belg.

SOURCE: Journal of Organometallic Chemistry (2000), 606(1), 55-64

CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New  $\text{RuCl}_2(\text{p-cymene})(\text{ER}_2\text{R}')$  complexes ( $\text{E} = \text{P}, \text{As}, \text{Sb}; \text{R}, \text{R}' = \text{H}, \text{alkyl}, \text{arylalkyl}$ ) have been synthesized and used as catalyst precursors for the ring-opening metathesis polymerization (ROMP) of cyclooctene, cyclopentene, and norbornene. When  $\text{ER}_2\text{R}'$  was a phosphinoarene, the p-cymene ligand could be displaced upon heating and tethered  $(\eta^1:\eta^6\text{-phosphinoarene})\text{RuCl}_2$  complexes were obtained. Simple thermogravimetric anal. (TGA) of the complexes provided clear-cut indication on their potential catalytic activity in ROMP.

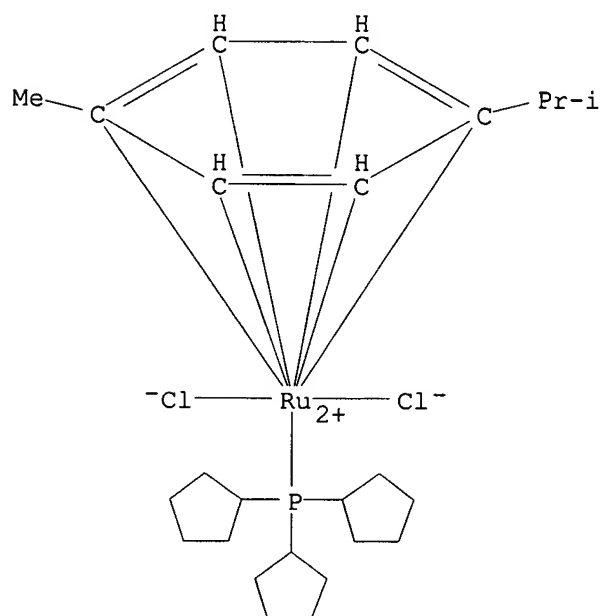
IT 306308-16-7P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(synthesis and evaluation of  $\text{RuCl}_2(\text{p-cymene})(\text{ER}_2\text{R}')$  and  $(\eta^1:\eta^6\text{-phosphinoarene})\text{RuCl}_2$  complexes as ring-opening metathesis polymerization catalysts)

RN 306308-16-7 CAPLUS

CN Ruthenium, dichloro[(1,2,3,4,5,6- $\eta$ )-1-methyl-4-(1-methylethyl)benzene](tricyclopentylphosphine)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: